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The Office action dated April 19, 2007, has been carefully reviewed and the foregoing amendment has been made in response thereto.

Claim 9 stands rejected under 35 USC 112, second paragraph. Claim 9 has been amended to overcome the basis for this rejection.

Claims 1-6, 8, 9, and 11-16 stand rejected under 35 USC 103(a) as being unpatentable over Moore (U.S. Patent 3,527,121) in view of Miller (U.S. Patent 4,003,273). Claim 1 has been amended such that each of the first set, second set, and third set of holes includes at least four sets of holes. The claim recites that each pair of holes of the first set supports a short pinion on a pinion shaft, i.e., at least four short pinions. Claim 1 further recites that a long planet pinion shaft and a long pinion supported on the long pinion shaft are located in each of the holes of the second set, thereby providing at least four long planet pinions. Claim 1 further recites that gear teeth on each of the four long pinions engages gear teeth on at least two short pinions.

Support for this claim is present in the specification with reference to Figures 3, which shows four short planet pinions meshing with four long planet pinions, and Figure 4, which illustrates five short planet pinions and five long planet pinions.

None of the cited prior art references, discloses, or suggests the use of at least four short planet pinions and at least four long planet pinions, as recited in Claim 1. The '273 patent to which the Office action referred, illustrates only three short pinions and four long pinions. Figure 2 of the '121 patent illustrates four short planet pinions and four long planet pinions, but the short planet pinions mesh only with one long planet pinion.

The '121 patent and the '273 patent are limited in these respects by the problem described in the present application. An eight-planet pinion gear set with load sharing cannot employ standard design techniques and get all of the gears to mesh properly. Usually, seven of the pinions can be positioned so that they are in mutual meshing engagement, but the eighth pinion will not assemble in the annular space

-7-

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around the sun gears. The method described in the present invention provides a technique, absent from the prior art, for designing an eight pinion gear set that is both able to be assembled and wherein each pinion is able to share torsional load with two other pinions. (pg. 8, lines 5-14, and pg. 1, lines 9-14). The prior art teaches away from encountering the problem discussed in the present application and neither discloses nor suggests a solution to the problem.

In view of the foregoing amendment and remarks, claims 1-6, 8, 9, and 11-16 appear now in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,



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